

- e) decelerating the flying object under the restraint of the fixture(s); and
- f) removing the flying object from the fixture(s).

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232. An apparatus for capturing a flying object, comprising:

- a) one or more linear or curvilinear fixture(s) suspended across the flight path of the object in a generally vertical orientation, or otherwise in an orientation which includes a component normal to the flight path;
- b) means for suspending the fixture(s); and
- c) means attached to the flying object for intercepting the sliding of the fixture(s) along a wing or spanwise lifting surface of the flying object.

233. The apparatus of claim 232, wherein the linear or curvilinear fixture is a cable.

At

234. The apparatus of claim 232, wherein the means for suspending the fixture(s) is selected from the group consisting of a kite, a balloon, a kite/balloon hybrid, an aircraft, a mast, and a crane.

235. The apparatus of claim 232, wherein the means for intercepting the sliding of the fixture(s) comprises at least one hook on a wing or spanwise surface of the flying object.

236. The apparatus of claim 232, wherein each hook includes a cleat or latch such that after the fixture is intercepted by the hook, sliding of the fixture through the hook is substantially arrested.

237. The apparatus of claim 232, wherein the motion of the flying object during deceleration is accommodated by compliance of the fixture(s).

238. A method for capturing a flying object, comprising the steps of:

a) suspending one or more linear or curvilinear fixture(s) across the flight path of the object in a generally vertical orientation, or otherwise in an orientation which includes a component normal to the flight path, such that the suspension of the fixture(s) is kept clear of said flight path by a distance greater than the height or width of said flying object;

b) guiding the object to strike one or more of the fixture(s);

c) intercepting the fixture(s) by one or more hooks attached to a wing or spanwise lifting surface of the flying object;

d) decelerating the flying object under the restraint of the fixture(s); and

e) removing the flying object from the fixture(s).

239. An apparatus for capturing a flying object, comprising:

a) means for suspending one or more linear or curvilinear fixture(s) across the flight path of the object in a generally vertical orientation, or otherwise in an orientation which includes a component normal to the flight path, such that the suspension of the fixture(s) is kept clear of said flight path by a distance greater than the height or width of said flying object;

b) means for suspending the fixture(s); and

c) means attached to a wing or spanwise lifting surface of the flying object for intercepting the fixture(s).

240. The apparatus of claim 239, wherein the linear or curvilinear fixture is a cable.

241. The apparatus of claim 239, wherein the means for suspending the fixture(s) is selected from the group consisting of a kite, a balloon, a kite/balloon hybrid, an aircraft, a mast, and a crane.

242. The apparatus of claim 239, wherein the means for intercepting the fixture(s) comprises at least one hook on a wing or spanwise surface of the flying object.

243. The apparatus of claim 239, wherein each hook includes a cleat or latch such that after the fixture is intercepted by the hook, sliding of the fixture through the hook is substantially arrested.

244. The apparatus of claim 239, wherein the motion of the flying object during deceleration is accommodated by compliance of the fixture(s).

245. The method of claim 238 with the additional step between steps d) and e) of quickly taking out the slack in the fixture.

246. The method of claim 245 in which the slack in the fixture is taken out by a device that pulls on the fixture .

247. The apparatus of claim 239 additionally including a device to rapidly take out the slack in the fixture after engagement of said aircraft to said fixture.

248. The apparatus of claim 247 where said device is located further down the flight path of said flying object than the suspension point of said fixture.

249. The method of claim 238 in which the loads from decelerating the flying object are reduced by a mechanism for increasing the displacement of the fixture.

250. The apparatus of claim 239 additionally including one or more stops or local enlargements of the fixture to assist in preventing said aircraft from sliding down said fixture.